

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (withdrawn) An isolated nucleic acid molecule, comprising a nucleic acid sequence comprising at least 50 nucleotides of a sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:1 or 2, and nucleic acid sequences which under stringent conditions hybridize with SEQ ID NO:1 or 2.
2. (withdrawn) The nucleic acid molecule according to claim 1, wherein said nucleic acid sequence comprises at least 50 nucleotides of a sequence selected from the group consisting of SEQ ID NOS: 3, 5, 7, 9, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, and 36, nucleic acid sequences which correspond to these nucleic acid sequences within the degeneration of the genetic code, and nucleic acid sequences which under stringent conditions hybridize with these sequences.
3. (withdrawn) The nucleic acid molecule according to claim 2, wherein said nucleic acid sequence comprises the entire sequence.
4. (withdrawn) The nucleic acid molecule according to claim 1 wherein at least one coding region is functionally deleted.
5. (withdrawn) The nucleic acid molecule according to claim 1, having inserted therein at least one insertion cassette for transposon or phage mediated insertion.
6. (withdrawn) The nucleic acid molecule according to claim 1, further comprising at least one heterologous nucleic acid molecule coding for a polypeptide or peptide is inserted or deletion-inserted.

7. (withdrawn) The nucleic acid molecule according to claim further comprising the sequences flanking said heterologous nucleic acid molecule each having a length of at least 50 nucleotides, preferred 200 - 250 nucleotides.

8. (withdrawn) The nucleic acid molecule according to claim 6 or 7, wherein said heterologous nucleic acid molecule comprises a nucleic acid sequence coding for a bacterial or viral antigen or homologue thereof.

9. (withdrawn) The nucleic acid molecule according to claim 6, wherein said heterologous nucleic acid molecule comprises a nucleic acid sequence coding for a tumor antigen.

10. (withdrawn) The nucleic acid molecule according to claim 7, wherein said heterologous nucleic acid molecule comprises at least one gene expression cassette.

11. (withdrawn) The nucleic acid molecule according to claim 7, wherein said heterologous nucleic acid molecule comprises at least one transactivator cassette, selective marker cassette, invertase cassette or combination thereof.

12. (withdrawn) The nucleic acid molecule according to claim 7, wherein said heterologous nucleic acid molecule comprises at least one nucleic acid sequence coding for a polypeptide or peptide targeting and/or immunostimulatory domain.

13. (withdrawn) A recombinant vector comprising the nucleic acid molecule according to claim 1.

14. (withdrawn) A cell comprising the nucleic acid molecule according to claim 5.

15. (withdrawn) The cell according to claim 14, wherein the cell is a gram-negative cell.

16. (withdrawn) The cell according to claim 14, wherein the cell is a *Salmonella* cell.

17-21. (canceled)

22. (currently amended) An isolated attenuated gram-negative *Salmonella* cell comprising the SPI2 gene locus, wherein at least one effector (*sse*) gene selected from the group consisting of *sseC*, *sseD* and *sseE* of the SPI2 locus is inactivated, wherein said inactivation results in an attenuation/reduction of virulence compared to the wild type of said cell.

23-25. (cancelled)

26. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 22, wherein said cell has a broad host range.

27. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 26, wherein said cell is a *Salmonella* serotype Typhimurium Definitive Type 104 (DT104) cell.

28-30. (cancelled)

31. (withdrawn) The cell according to claim 22, further comprising at least one inactivated *ssr* gene.

32. (withdrawn) The cell according to claim 31, wherein said at least one *ssr* gene is *ssrB*.

33. (withdrawn) The cell according to claim 22, further comprising at least one inactivated *ssc* gene.

34. (withdrawn) The cell according to claim 33, wherein said at least one *ssc* gene is *sscB*.

35. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 22, wherein at least one gene is inactivated by a mutation comprising a deletion.

36. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 35, wherein said deletion comprises at least 6 nucleotides.

37. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 35, wherein the mutation comprises a deletion of the complete coding sequence for said gene.

38. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 22, wherein at least one gene is inactivated by a mutation comprising the insertion of a heterologous nucleic acid molecule.

39. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 38, wherein said mutation is a non-polar mutation.

40. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 22, wherein at least one additional gene located outside of the SPI2 locus is inactivated, wherein the inactivation results in a further attenuation/reduction of virulence compared to the wild type.

41. (withdrawn) The cell according to claim 40, wherein said additional gene comprises an *aro* gene.

42. (withdrawn) The cell according to claim 41, wherein said *aro* gene is *aroA*.

43. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 40, wherein said additional gene is superoxide dismutase.

44. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 22, comprising at least one selective marker cassette.

45. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 44, wherein said selective marker cassette is capable of conferring an antibiotic resistance to the cell.

46. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 22 comprising at least one gene expression cassette.

47. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 22 comprising at least one transactivator cassette.

48. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 22 comprising at least one invertase cassette.

49. (previously presented) The isolated attenuated gram-negative *Salmonella* cell according to claim 22 further comprising at least one insertion cassette.

50-68. (cancelled).

69. (withdrawn) An attenuated gram-negative cell comprising the SPI2 gene locus, characterized by a lack of at least one SPI2 polypeptide, wherein said lack results in an attenuation/reduction of virulence compared to the wild type of said cell.

70. (withdrawn) The attenuated gram-negative cell according to claim 69, wherein said missing polypeptide is selected from the group consisting of effector (*sse*) polypeptides,

secretion apparatus (*ssa*) polypeptides, chaperon (*ssc*) polypeptides and regulatory (*ssr*) polypeptides.

71-90. (cancelled)

91. (withdrawn) An isolated nucleic acid molecule comprising a nucleic acid of at least 100 nucleotides of a sequence selected from the group consisting of SEQ ID NOS:3, 5, 7, 9, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, and 36, nucleic acid sequences which under stringent conditions hybridize with these sequences.

92. (withdrawn) The nucleic acid molecule according to claim 91, wherein said nucleic acid molecule is capable of inducing the expression of a nucleic acid sequence coding for a peptide or polypeptide operatively linked to said nucleic acid molecule.

93. (withdrawn) Expression system for the *in vivo* inducible expression of a heterologous nucleic acid in a target cell, comprising a carrier cell for said heterologous nucleic acid, wherein said carrier cell comprises (a) a polypeptide having the amino acid sequence shown in SEQ ID NO:35 (*ssrA*) or a functional homologue thereof, (b) a polypeptide having the amino acid sequence shown in SEQ ID NO:37 (*ssrB*) or a functional homologue thereof, and (c) the nucleic acid molecule according to claim 92.

94. (withdrawn) Expression system according to claim 91, wherein said target cell is a macrophage.

95. (withdrawn) Expression system according to claim 93, wherein said carrier cell is a *Salmonella* cell.

96. (withdrawn) The expression system according to claim 93, wherein said target cell comprises a gene expression cassette.

97. (withdrawn) The expression system according to claim 93, wherein said target cell comprises an insertion cassette.

98. (withdrawn) The expression system according to claim 93, wherein said target cell comprises a heterologous nucleic acid molecule coding for a peptide or polypeptide.

99-100. (cancelled)